UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

SR-6J

DEC 11 2019

John Lang, P.E.
Principal Client Manager
EHS Support LLC
3587 Monteith Avenue
Cincinnati, Ohio 45208

Re: EPA Comments on Revised Surface Water Sampling Work Plan for Indian Ridge Marsh
Remedial Investigation/Feasibility Study for Operable Unit 2
Lake Calumet Cluster Site, Chicago, Illinois

Dear Mr. Lang:

The U.S. Environmental Protection Agency and the Illinois Environmental Protection Agency have reviewed the *Revised Surface Water Sampling Work Plan for Indian Ridge Marsh (Work Plan),* dated October 24, 2019 for the Lake Calumet Cluster Site (Site) in Chicago, Illinois. The Work Plan, prepared by Arcadis U.S., Inc., on behalf of the Lake Calumet Cluster Site Group, was submitted as part of the Operable Unit 2 Remedial Investigation/Feasibility Study being conducted at the Site.

Enclosed are EPA comments on the above referenced document. If you have any questions regarding this letter, please contact me at (312) 886-6151 or by e-mail at kolak.shari@epa.gov.

Sincerely,

Shari Kolak
Remedial Project Manager
Superfund Division

Enclosure

cc: Nicole Wilson (IEPA)

U.S. EPA Comments on
Revised Surface Water Sampling Work Plan for
Indian Ridge Marsh dated October 24, 2019
Lake Calumet Cluster Site, Chicago, Illinois

General Comments:

1. The surveyor that will get elevations and latitude and longitude for the staff gages should also get elevations for the two ponds close to Torrence Ave at North Indian Ridge Marsh(where the proposed 'background' samples will be taken). This will better inform the flow direction and hydrology. This area is extremely complex hydrologically and flow direction should not be assumed. Ideally, staff gages can be installed in all these seemingly isolated ponds where background samples will be collected so that elevations can be understood at the time of sampling. This will make chemistry data interpretations easier (defensible). These additional recommended staff gages do not need continuous data collection.

2. Throughout the Work Plan, the text states that the Illinois Numeric and Derived Water Quality Standards were used for comparison. Many of these standards are calculated based on the hardness of the sample collected but values were listed within no reference to how the values were calculated. Please provide information on the inputs used to develop these values.

Specific Comments:

3. Section 4.1, Evaluation of Temporal Variability in Hydrology - The culvert that Indian Ridge Marsh (IRM) drains underneath 122nd street is undersized for the area and oftentimes floods and causes backflow (George Roadcap, oral statement Oct. 30th, 2019). It may be good to add a staff gage closer to this outlet, and another staff gage at the inflow to IRM. This will help gain a greater understanding of the flow dynamics at this site and better inform the sampling locations and results (access might also be easier too).

4. Section 4.1, Evaluation of Temporal Variability in Hydrology - It is recommended that the transducers deployed at the staff gauge(s) for continuous monitoring have a protective covering fixed to the staff to prevent the transducer from bouncing around in the wind-wave action. For example, a 4-inch pvc pipe with drilled out holes throughout the pipe (up to the depth range of the water) to allow water to flow in but serve as a stilling well would be acceptable to use. This will prevent erroneous readings and potential damage to the transducer.

5. Section 4.2, Sample Location Selection - Please include a discussion of how the water levels will be reviewed, analyzed, and used for selection of optimized sampling locations. This is all we have for interpreting the groundwater to surface water flow direction and serves as a key piece of information for locating the sample collection.

6. Section 4.4 and Appendix B - The text doesn't list the order in which the different sample containers will be filled. The bottles for volatile organic compounds should be collected

first, followed by semi-volatile compounds, etc. to prevent excess volatilization during sample handling.

7. Section 5, Schedule and Reporting - Add in a period for analysis of water level data after three months of data collection. The data should be used to inform the range in water levels and to optimize the sampling locations.

8. Section 5, Schedule and Reporting - It is recommended to keep the pressure transducers in place until after the final sampling round. The data will be more useful for determining optimum sampling collection periods (baseflow periods preferred over flooding conditions). Also, the data may help to inform chemistry results.